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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/996,946	11/30/2001	Tacko Hayase	0445-0313P	3991
2292	7590	09/29/2005	EXAMINER	
BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747			COLE, ELIZABETH M	
			ART UNIT	PAPER NUMBER
			1771	

DATE MAILED: 09/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/996,946	Applicant(s) HAYASE ET AL.	
	Examiner Elizabeth M. Cole	Art Unit 1771	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 July 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11, 13-15 and 18-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11, 13-15, 18-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>7/14/05</u> | 6) <input type="checkbox"/> Other: _____ |

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1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 7/14/05 has been entered.

2. Claims 1-11, 13-15 18 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The specification as originally filed does not provide support for the limitation that the thin fibers have a fiber length of 2-15 mm. The passage cited at page 7 of the specification provides support for the claimed dtex but not for the claimed length.

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

4. Claims 1, 9-10, 13-15, 18 rejected under 35 U.S.C. 103(a) as being unpatentable over JP 2000-212866 as set forth in the previous action in view of either of JP 03-279452 or JP 02-112460. JP '866 differs from the claimed invention because JP '866 does not teach incorporating thin fibers into the wipe, (although JP '866 does teach fusion bonding the conjugate fibers at crossover points, which corresponds to the new limitation regarding the fusion bonding of the thick fibers). Both JP '460 and JP '452

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teach that nonwoven wipes which comprise both thick and thin fibers have excellent tensile strength. See abstracts. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated fine fibers into the wipe of JP '866. One of ordinary skill in the art would have been motivated to incorporate the fine fibers into the nonwoven of JP '866 by the expectation that this would form a nonwoven having enhanced strength. With regard to the particular dtex and fiber length, although JP '460 and JP '452 disclose the fine fibers in terms of the diameter rather than the dtex, it appears that the fibers having a diameter of 0.1-8 microns would meet the claim limitation, and with regard to the length of the fibers, it would have been obvious to have selected the fibers so that the lengths of the fine and coarse fibers were similar or the same in order to facilitate the mixing of the two types of fibers. With regard to the limitation that the fabric comprises intersections of thick and thin fibers, since both JP '460 and '452 teach forming wipes from both thick and thin fibers, once the thin fibers were incorporated into the wipe of JP '866 the bonding at crossover points would necessarily be present, especially since JP '866 teaches bonding at crossover points, (pages 29-30).

5. Claims 2 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 2000-212866 in view of either of JP 03-279452 or JP 02-112460 as applied to claims 1, 9-10, 13-15, 18 above, and further in view of WO 01/52713 to Kakiuchi et al as set forth in the previous action.

6. Claims 3-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 2000-212866 in view of either of JP 03-279452 or JP 02-112460 as applied to claims 1,

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9-10, 13-15, 18 above, and further in view of Kobayashi et al, EP 926,288 as set forth in the previous action.

7. Applicant's arguments filed 7/14/05 have been fully considered but they are not persuasive.

8. With regard to the 112 rejection, applicant points to page 12 of the specification. However, this passage refers to the length of the thick fibers, not the thin fibers. The3re is support for the length of 2-15 mm for the thick fibers but not for the thin fibers.

9. With regard to the art rejection, Applicant argues that none of the references teach thick and thin fibers having the claimed length and dtex. However, JP '866 teaches fibers having a length of 3-25 mm and a fineness of 0.5-50 denier. Both JP '460 and '452 teach mixing thin and thick fibers in order to form a cloth having improved tensile strength. Therefore, one of ordinary skill in the art, in view of the teaching of both JP '460 and '452 would have been motivated to include fibers having the claimed fineness in the airlaid nonwoven of JP '866. One of ordinary skill in the art would have been motivated to make the fine fibers the same general length as the thick fibers which were already present in JP '866 in order to form a nonwoven wherein the two types of fibers could be easily mixed.

10. Applicant argues that the thick fibers of JP '866 is not disclosed as having the ability to remove soil from a solid surface by scouring or scraping but instead teaches that the fibers have good bonding affinity to cellulosic fibers. However, the thick fibers of JP '866 are structurally identical to the claimed thick fibers and therefore would have to possess the same properties as the clamed fibers with regard to cleaning ability.

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11. Applicant argues that the thin fibers in JP '460 do not meet the claimed dtex limitations. However, the fibers can have a size of up to 8 microns. These fibers would meet the claimed range. The disclosure of the two JP references is not limited to the examples.

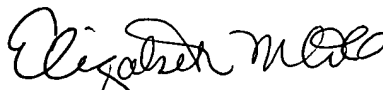
12. With regard to claim 13, JP '866 teaches at claim 31 that the fibrous web comprising the cellulosic fibers and thermoplastic fibers can be laminated with another sheet such as a cotton fabric, (i.e., a cellulosic fabric).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elizabeth M. Cole whose telephone number is (571) 272-1475. The examiner may be reached between 6:30 AM and 6:00 PM Monday through Wednesday, and 6:30 AM and 2 PM on Thursday.

Mr. Terrel Morris, the examiner's supervisor, may be reached at (571) 272-1478.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

The fax number for all official faxes is (571) 273-8300.



Elizabeth M. Cole
Primary Examiner
Art Unit 1771

e.m.c